I claim:

1.   A process for storing data, comprising
       providing a back up server having storage for a plurality of data files,
       providing a long term memory device having a plurality of data storage elements and a processor for coordinating the operation of the plural data storage elements,
       directing the processor to store data on the storage elements and for recording a time signal representative of the time of recording data,
       identifying a condition representative of each storage element having reached capacity, and
       directing the process to compare the time signals for each data storage element to store data on the storage element having the earliest recorded data.

2.   A process according to claim 1, wherein the long term memory device includes a tape library system having a plurality of drive elements.

3.   A process according to claim 2, wherein the tape library includes a robotic controller for moving tapes in an out of a tape drive system.

4.   A process according to claim 1, wherein the long term memory device includes a raid storage system.

5.   A process according to claim 1, wherein directing the processor to store data on the storage elements includes directing the processor to store data on each storage element unitl each storage element reaches capacity.